A Health Program for Institutions

A Practical Discussion of Some of the Fundamental Necessities for a Health Program in a Children's Institution

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A. The Child
B. The Institution

First let us eonsider the ehild as he arrives as an applieant for admission at any ehildren's institution. In this eonnection we might state that unless mentioned speeifieally baby earing homes are not considered here, but will be taken up in no great detail later. Now we are eonsidering ehildren from say five years of age upward. What should be done so that the ehild may have that whieh is his due where ever he be, whether in his own home, in a foster home or in an institution—good health?

THE ADMISSION EXAMINATION

In the first plaee we must know the ehild's eondition of health on arrival and for this purpose he must have a thorough, eomplete physieal examination from his head to his feet, for without this all is but guess work as to his health, and even gross defeets of bodily function may be overlooked.

It may need some patienee but it needs no great amount of medical skill to give this initial "health examination" or appraisal of the ehild's eondition, and you may rest assured that the time and money spent in this examination will be returned to you many fold. Unless you are eonversant with this subjeet the number of abnormal conditions found in children will surprise you.

METHOD OF EXAMINATION

For those of you who are planning to have this initial examination of ehildren made I would suggest the following outline:—

First and foremost, we believe in the gradual approaeh, at least to younger children. The abrupt applieation of the stethoseope to the ehest is apt to frighten almost any young child. It is well to start with a few words of inquiry as to the ehild's age or sehooling. Even the youngest are interested in the vital subjeet of food and what are the favorite kinds of iee eream or candy. Thus some idea of the previous diet may be aequired, and explanation be found for malnutrition or "Nervousness."

Aeeurate measurement of weight and height should be recorded and the pereentage of under or overweight should be eonsidered in relation to the height and raeial eharaeteristics. The scalp may be examined for presenee of nits or ringworm or other disease, and abnormal dryness or loss of hair noted. Any gross deviations in the shape of the head should also be recorded.

Examination of the speeial organs of sense may well be left to the last. The condition of the teeth and throat should be most earefully scrutinized, the presenee or absence of glandular enlargements in the

neck, either of the thyroid gland or the smaller neck glands. This brings us to the examination of the heart and lungs which should be made with special care. The question of abdominal pain is considered and that of constipation. The abdomen is carefully felt for any tenderness, enlargement of the liver or spleen or unusual amounts of abdominal gas suggesting, possibly, too starchy a diet or a chronic indigestion from some other cause. The genitals should be examined, boys especially for phimosis, and girls for the presence of any unusual discharge. Posture comes next; the carriage, so characteristic in that army of children who are constantly overfatigued. Note should be made of chest expansion, shape of chest, round shoulders, the relative height of each shoulder, the straightness of the spine and legs, the arches of the feet and the gait. Then the special organs, as the ears, for the condition of the drums, presence of wax and acuity of hearing; the nose, for deflected septum, and the eyes for the condition of the lids and visual tests. An examination of the urine should be made, and it is probably wise to examine the blood of each child on, or shortly after, admission, for blood cell count and Wassermann test.

During the examination some fairly accurate idea of the child's mentality can be obtained by inquiring as to his school grade and by the readiness and intelligence with which questions are answered. The general attitude and demeanor of the boy should also be noted. These facts may suggest the necessity for a mental examination, and the notes may be of some value to the psychiatrist.

PHYSICAL RECORDS AND FOLLOW UP

While the reading of all of these points in the physical examination may make it appear unduly formidable, yet in reality such an examination may be very satisfactorily made in from one half to one hour, and I feel strongly that it is only justice to the child to let him start his institutional career on the basis of this physical evaluation. The results of the examination should be recorded at once and kept carefully filed for reference and comparison; but a careful follow up system should insure that defects found must be remedied within a reasonable time. Every child should be re-examined at least, once, and preferably twice a year.

PERIOD OF ISOLATION

A most dreaded event in an institution is an epidemic of one of the infectious or contagious diseases and every institution, regardless of its size or character, should be equipped to afford isolation to children for at least the first sixteen days and preferably the first three weeks after admission. During this time the children should have no contact whatever with the others. This period will in no sense be wasted time, but will certainly greatly influence the amount of contagion in the institution. Moreover, during this period means should be taken to protect the children from infectious diseases, at least as far as modern methods of preventive medicine permit. Vaccination against smallpox should be performed if it has never been done before. If it has been done, re-vaccination can probably wait while more important tests are made. Every new child on admission should have a Schick test for diphtheria and if this is posititve he should be immunized with toxin-antitoxin and retested at the end of six months. Many

physicians omit the preliminary Schick test and give all children the three doses of toxin-antitoxin. In either case it is most important to make sure that all children are diphtheria proof by the retest at six months. It may be very definitely stated that there is no excuse for any child to have diphtheria in any Pennsylvania institution and its presence should give ample cause for investigation by the State Board of Health.

Unfortunately, to date prevention against scarlet fever is not on such a sure foundation. It is helpful, however, to have the child given the skin test for susceptibility to scarlet fever (Dick test). At least one knows then which children are susceptible to scarlet fever and which are immune. This is of great help if an epidemic of the disease should start.

A blood test for syphilis should be made during this period of isolation and serial vaginal and cervical smears should be taken of girls at three day intervals during the quarantine period to lessen the danger of introducing vaginitis into the institution.

MEDICAL SUPERVISION

After this preliminary period of isolation is over the child becomes a real member of the institution family and subject to its health rules. There is probably inevitably in every institution a certain amount of routine. There must be a certain amount of rest and play, exercise and work and sleep.

And here, right at the start, we must refer to the child's physical examination record to see how much of each of these five he needs and in what proportion. You who are in charge of these child caring institutions have before you the most perfect chance for experimental health work with children imaginable, with the results, if you are at all careful, almost certain to be in your favor (and the child's). If you can enlist the aid of your medical staff and of your dietitian, and the cooperation of the children themselves, you will be amazed at the results which you can obtain in increase of weight and health of the children and consequently their greater happiness.

"UNDER-WEIGHT" CHILDREN

What is the best index to a child's health and physical well being or "efficiency?" There is, unfortunately, no absolute standard, but we believe that you will not go far astray if you accept the weight to height tables of Emerson or the Baldwin-Wood scale. Any child (except when due to unusually marked racial characteristics) who is 10% below weight in these tables should without any atom of doubt come under medical supervision, and it is better to set the standard at 7%.

These underweight children should be in a squad or "class," and should be held there until they "graduate" into the normal weight zones. If you study them, they will prove themselves full of interest to you and with proper medical supervision the great majority should be able to attain normal weight and a good general physical condition.

What do these children lack? Why do they stay persistently underweight month after month—often year after year? The causes may be hard to find, but in many they are surprisingly easy, once you get the knack (and the interest) of going after them. The cause may be a physical defect, perhaps unhealthy tonsils or adenoids, or a faulty

posture; or the eating habits may be bad—the child may eat too fast or he may secure food between meals or he may eat too many sweets; or (and this is very often an unsuspected cause) he may overexercise especially in relation to the quantity or character of the food taken; or perhaps, he may be a poor breather, a cause also very often overlooked. This latter may be due to a mechanical defect,—greatly enlarged tonsils and adenoids—or simply to lack of instruction in proper breathing. And again, another cause of malnutrition may be worry or chronic unhappiness, or there may be distinctly medical basis such as congenital syphilis, or an early infection with tuberculosis, possibly of some of the internal glands. In the great majority of cases there is a combination of several of these causes operating at the same time. But you can readily see that none of them should be insurmountable, and that with patience and thoroughness all can be improved or eliminated and a puny, cross, fussy child may be converted into a healthy boy or girl. How do we attempt to do this?

In the first place, look again at your child's physical examination report. In the apt words of Emerson, he must be rendered "free to grow." Eliminate first the grosser physical defects. Children with congenital syphilis must receive proper treatment. The teeth can with reasonable ease be cleaned and cavities filled. Adenoid masses and diseased, unhealthy tonsils from which the child may be absorbing poisonous material should be completely removed. He will of course be one of the "diet squad" and as such have the food intake raised to a considerable degree above the average. It should not be considered an unreasonable expense to let these children have milk, butter and eggs in sufficient quantity to cause them to gain weight.

Possibly of equal importance is the matter of rest. It is impossible to say how much rest any individual child requires to make him gain. Some may make satisfactory improvement with merely the correction of defects and increased diet. Most will need, in addition, a rest period of one to three hours in the day time. There is the occasional child who will not start to gain until he is given a complete rest cure, preferably in the open air with forced feeding. But once these children start to gain, improvement is usually continuous and reasonably rapid. In case of doubt it is better to err on the side of extra rest and decreased exercise until the child is well started on his gain.

Suffice it to say that whoever is in direct charge of the work with the under-nourished squad should have enthusiasm as well as a thorough knowledge of how to handle children. Cooperation on the child's part must be present or must be capable of being aroused.

To illustrate the success that may be attained I would refer you to the very interesting article. "Physical Fitness for Orphans," by William R. P. Emerson of Boston, the well known nutrition expert (Journal of the American Medical Association, May 2nd, 1925, vol. 84, pps. 1327-29). Two things are very striking in this report,—first, the large percentage of children in certain orphan asylums who are so seriously underweight as to fall within the danger zone; secondly, the results with these children a few months after an adequate nutrition program had been in force.

Dr. Emerson found in Indianapolis, for instance, that two-thirds (66%) of the children in the orphan asylums studied were below par and nearly half were in the seriously underweight group (below

10%). In Cleveland the percentages were much the same. This is a decidedly higher average than in the public and parochial schools where Emerson has found the average of seriously undernourished children to be from 30 to 34 percent.

But the encouraging part is the comparative ease with which these undernourished children may be brought up to within normal limits provided the work be done systematically and thoroughly. Thus, in one institution, 90% of the underweight children were brought up to normal weight within six months. In an asylum in another city 64.5% of the children were seriously underweight but in a few months only 7% still remained below par, and four of these were newly enrolled. In yet another institution weighings of the children in February and three months later in May showed that in February 62.5% of the children were normal weight or over, whereas in May the number had risen to 83%. The 15% of seriously underweight children in February had decreased in May to only 2.5%.

Malnourished children are usually over height for age; but frequently children who have been too closely confined in so called asylums are under height (stunted) as well as underweight. With these children increase in height as well as weight accompanies improvement in general nutrition.

With these figures in mind we should consider what can be done in our own state so that every boy or girl in a Pennsylvania institution should have as nearly as possible what is his simple rights—a weight as nearly normal as possible and proper surroundings for the safe-guarding of his normal health.

WHAT THE INSTITUTION CAN DO FOR THE CHILD

We have considered in the earlier part of this paper some of the factors leading to the proper nutrition of the child, and have attempted to show the common prevalence of under nourishment in children in certain orphan asylums, and the comparative ease with which underweight children under the carefully controlled conditions of institutional management may be brought up to within the limits of safety weight or even up to normal weight or above.

Just what percentage of children in Pennsylvania institutions are underweight and how serious this problem of malnutrition is, probably many of you can answer much better than I. Let us consider for a moment just what the institution can do to insure the best conditions for the child's health, which is, after all, the goal toward which we are all working.

VENTILATION

In the first place let us have fresh air, winter and summer—the cheapest and best medicine that we have. There must be ample air space in dormitories, and there must be moving air. Ventilating systems are expensive and unsatisfactory. Let us have open windows winter and summer with plenty of bed coverings in winter—and each child should have his own bed. None of these are unduly expensive.

PERSONAL HYGIENE

Baths, preferably showers, at least twice a week, should be available. There must be a set time for the child to move the bowels each day.

Toilets must be kept clean and the seats should preferably be of the U type. Of course each child should have his own towels as required by the state law, and his own tooth brush which is to be used twice daily (not to be kept as an ornament as some children believe). Children with enuresis should be in a class by themselves until they acquire control. These children should have special supervision as to the amount of fluid consumed in the late afternoon, and should be taken to the toilet at frequent, but gradually lengthening intervals at night.

EXERCISE

Every normal child should have as the very minimum two hours of active exercise out of doors daily, preferably as supervised play. The period may be constantly increased, depending on the age of the child. Whether the child is working or studying there should be rest or play periods in the morning, always out of doors in suitable weather.

DIET

Most institutional children have two minor faults easily overlooked and easily corrected, they eat too fast and do not drink enough water, four to five glasses a day, most of this given between meals.

The details of proper diet hardly come within the scope of this paper and would lead us too far afield. Only please remember that it has been very clearly shown that both boys and girls from fourteen to seventeen need as much or more actual food than a laboring man; and especially in winter see that children have some leafy or other vitamin containing food. It is advisable that each child have a pint of milk a day. A so called "balanced" diet is advisable and especial care should be taken that too much starchy food is not included in the diet of the younger children. Fresh fruit in summer and cooked or canned in winter are necessary as laxative.

CONCLUSION

And now to sum up in a few words the ideas which we have endeavored to bring out in this paper.

In the first place any institution caring for children in any manner whatsoever has a bounden duty to make those children as healthy as possible and to keep them so. We all agree to that, and with that in mind we must see to it that they have an ample supply of suitable food, well cooked and served in a clean manner. Each child must have ample air space in his room or dormitory with proper bed clothes in winter. There must be a reasonable time allowed for out door play and exercise, preferably under supervision. He must have training in health habits such as defectation and bathing. Toilets and dormitories must be clean and well aired. Children should be happy, or as happy as possible.

We believe it most important that every child should have on admission a thorough, complete physical examination and that careful records should be kept of the results of this examination, and also that all physical defects found must be corrected, at least as far as possible. We believe that for the safety of other children new children should be isolated, preferably for three weeks, and that during this time necessary laboratory or other diagnostic procedures should be carried out. Every child should be protected against diphtheria—any epidemic of this disease in any institution being now indefensible and calling for

serious questioning by the State Board of Health. Blood tests should be made and girls should have repeated vaginal smears, for once vaginitis creeps into an institution it is most difficult to eradicate.

Children found to be undernourished (10% or more underweight), should be in a special squad with increased food and rest periods. Defects found should be at once corrected so that children may be rendered "free to grow." Every child should be re-examined once a year at least—undernourished children every three or six months depending on the degree of malnutrition.

There is nothing in this "Health Program" which calls for a great outlay of money. It is simple and practical and can be supplied in any institution. It needs considerable thought and much thoroughness in the person who carries it out, preferably the institution physician—and an ample supply of enthusiasm. With a faithful trial you will be surprised at the result in six months or a year. And best of all you will have a true satisfaction in watching undernourished children grow into healthy, normal boys and girls. We also believe that the spirit of the institution will be happier. And finally, please remember that wherever he is, in his own home, in a foster home, or in an institution, every child has a right to a normal growth and good health, and it is our job to see that these he has.